

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number  
**WO 2004/087543 A1**

(51) International Patent Classification<sup>7</sup>: **B65G 35/06,**  
1/127

(21) International Application Number:  
PCT/IT2003/000188

(22) International Filing Date: 31 March 2003 (31.03.2003)

(25) Filing Language: Italian

(26) Publication Language: English

(71) Applicant (for all designated States except US): **PAK 2K**  
S.R.L. [IT/IT]; Via G. Monari, 34, I-44044 Cassana (IT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MOELLER, Kurt**  
[CH/IT]; Via C. Bagni, 54, I-44100 Ferrara (IT).

(74) Agents: **CANTALUPPI, Stefano et al.**; Cantaluppi &  
Partners S.r.l., Via Matteotti, 26, I-35137 Padova (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,  
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,  
UZ, VC, VN, YU, ZA, ZM, ZW.

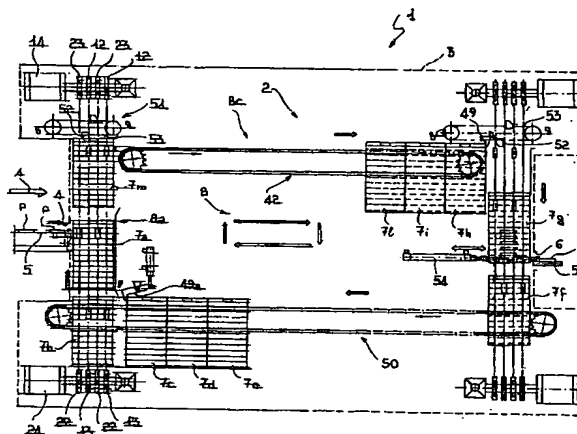
(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i)) for the fol-  
lowing designations AE, AG, AL, AM, AT, AU, AZ, BA, BB,  
BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK,  
DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,  
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,  
OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM,  
TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW,  
ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ,  
UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD,

[Continued on next page]

(54) Title: DEVICE FOR STORAGE AND FEEDING OF PRODUCTS



(57) Abstract: A device for the accumulation and release of products (P) disposed in ranks, comprises: A storage unit (2) with respective receiving and delivery openings for the products, a plurality of container elements (7) movably guided within the storage unit (2) between the receiving (4) and delivery (6) openings along a predetermined path (8), each container element (7) being provided with a plurality of support surfaces (9) for containing ranks of products (p), actuating means for controlling the movement of the container elements (7) in the storage unit (2) so as to present each container element (7) to be filled in sequence at the receiving opening (4), for loading incoming ranks of products onto the respective support surfaces (9) of the container and to conduct the previously filled containers to the delivery opening (6) for the release if respective ranks of products leaving the storage unit (2). The actuating means comprise first and second separate control means (10, 11) respectively associated in sequence with one and another container (7) in succession to one another of each pair of container elements, so that both of the containers (7) in succession to one another are conducted from and towards said receiving opening (4) and/or delivery opening (6) of the storage unit (2) with independent movements with respect to one another.



*RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*